

WHAT IS CLAIMED IS:

1. A sustained release composition comprising:

- (a) cellulose fibers;
- (b) an active agent, said active agent incorporated into said cellulose fibers; and
- (c) an optional release retardant, said release retardant coated over or adsorbed onto said cellulose fibers and said active agent.

2. The composition of claim 1 wherein the cellulose fibers are present in an amount of about 50% to about 99.9% by weight of the composition.

3. The composition of claim 1 wherein the cellulose fibers are hydrophilic.

4. The composition of claim 1 wherein the cellulose fibers are hydrophobic.

5. The composition of claim 1 wherein the cellulose fibers are selected from the group consisting of cotton, Esparto grass, bagasse, kemp, flax, silk, wood pulp, chemically modified wood pulp, jute, rayon, methylcellulose, ethylcellulose, hydroxypropylcellulose, hydroxybutylcellulose, carboxymethylcellulose, sodium carboxymethylcellulose, and cellulose acetate.

6. The composition of claim 1 wherein the cellulose fibers comprise wood fibers, cotton fibers, or a mixture thereof.

7. The composition of claim 1 wherein the cellulose fibers have a median particle size of about 5 to about 30 microns.

8. The composition of claim 1 wherein the active agent is present in an amount of about 0.1% to about 50% by weight of the composition.

9. The composition of claim 1 wherein the active agent is water soluble.

10. The composition of claim 1 wherein the active agent is oil soluble.

11. The composition of claim 1 wherein the active agent is selected from the group consisting of a topically active compound, a fragrance, a spice, a food flavor, a food color, a catalyst, a pesticide, and a drug or therapeutic agent.

12. The composition of claim 11 wherein the topically active agent is selected from the group consisting of a hair-growth promoter, a deodorant, an antiperspirant compound, a hair conditioner, a skin conditioner, an antioxidant, an insect repellent, a counterirritant, a vitamin, a steroid, a hair dye, a skin-lightening compound, a self-tanning compound, an antibacterial compound, an antifungal compound, an anti-inflammatory compound, a topical anesthetic, an epidermal lipid replacement, a sunscreen, an optical brightener, a dermatitis or skin disease medication, and mixtures thereof.

13. The composition of claim 11 wherein the topically active agent is selected from the group consisting of benzocaine, dyclonine hydrochloride, aloe vera, butamben picrate, lidocaine hydrochloride, xylocaine, providone-iodine, polymyxin b sulfate-bacitracin, zinc-neomycin sulfate-hydrocortisone, chloramphenicol, ethylbenzethonium chloride, erythromycin, lindane, benzoyl peroxide, erythromycin benzoyl peroxide, clindamycin phosphate, 5,7-dichloro-8-hydroxyquinoline, alclometasone dipropionate, betamethasone valerate, o-amino-p-toluenesulfonamide monoacetate, monobenzene, amcinonide, diflorasone diacetate, hydrocortisone, methylbenzethonium chloride, PEG-4 dilaurate, lanolin oil, petrolatum, mineral wax, butocouazole nitrate, haloprogin, clotrimazole, O-[(2-hydroxymethyl)methyl]guanine, alclometasone dipropionate, betamethasone valerate, isopropyl myristate MSD, anthralin, methoxsalen, coal tar, 2-(acetyloxy)-9-fluoro-1',2',3',4'-tetrahydro-11-hydroxypregna-1,4-dieno-[16,17-b]naphthalene-3,20-dione, 21-chloro-9-fluoro-1',2',3',4'-tetrahydro-11b-hydroxypregna-1,4-dieno-[16z,17-b]naphthalene-3,20-dione, allantoin, salicylic acid, and mixtures thereof.

14. The composition of claim 1 wherein the active agent is selected from the group consisting of marigold extract, urea peroxide, thermus ferment, glycerin, an optical brightener, an anti-oxidant, a silicone, isopropyl myristate, vitamin E acetate, ascorbic acid, retinol, salicylic acid, benzophenone-3, a fragrance, glycolic acid, hyaluronic acid, hydrogen peroxide, a protein, an enzyme, tocopherol, hydroquinone, kojic acid, an alpha or beta hydroxy acid, and mixtures thereof.

15. The composition of claim 1 wherein the release retardant is present in an amount of about 0.1% to about 10% by weight of the composition. .

16. The composition of claim 15 wherein the release retardant is water insoluble, and is selected from the group consisting of a fatty alcohol, a C₈-C₂₀ fatty acid, a fat, an oil, and mixtures thereof.

17. The composition of claim 15 wherein the release retardant is water soluble, and is selected from the group consisting of a poly(acid), a polyol, a salt of a C₈-C₂₀ fatty acid, an alkanolamide, a water-soluble polymer, a biological polymer, a gum, a carbohydrate, a cellulose derivative, a sorbitan derivative, and mixtures thereof.

18. A formulation comprising a sustained release composition of claim 1 and a carrier.

19. The formulation of claim 18 wherein the formulation is a liquid.

20. The formulation of claim 18 wherein the formulation is a solid.

21. The formulation of claim 18 wherein the formulation is a semisolid.

22. A method of treating skin or hair comprising a step of contacting the skin or hair with a sustained release composition comprising:

- (a) cellulose fibers;
- (b) a topically active agent, said topically active agent incorporated into said cellulose fibers; and
- (c) an optional release retardant, said release retardant coated over or adsorbed onto said cellulose fibers and said topically active agent.